# TIMELINEZ

THE JOINT NEWSLETTER OF THE THREE TIMEX-SINCLAIR USER GROUPS IN THE SAN FRANCISCO BAY AREA
** EBZUG PUG SVSTUG **

Volume 5, Issue 12 December 1987 Serving TIMEX/sinclair, and QL

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Xmas program

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**NEXT ISSUE:**

TIMELINEZ WRITER'S GUIDE

QL USER DEFINED GRAPHICS
By Tim Swenson

and more!

## TIMELINEZ IS GROWING

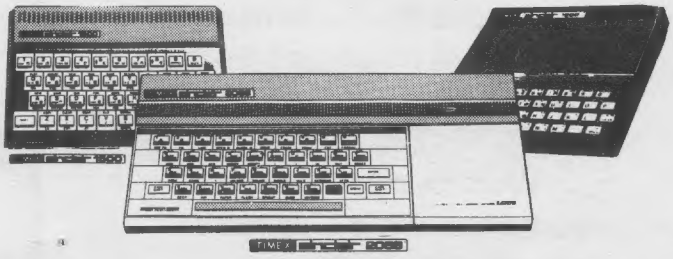
Starting with this issue, our monthly publication is adding two new features.

1) TIMEXplorer and
2) QL Connection

The idea of TIMEXplorer was originally conceived as a small publication similiar to SUM Magazine specifically dedicated to the TIMEX/sinclair computers. Since taking on TIMELINEZ, this tiny brain-child of mine approached an abrupt end even before getting off the ground. So, in order to have my cake and eat it too - TIMEXplorer will be a donated part to TIMELINEZ.

As far as the QL Connection goes, TIMELINEZ is going to give more attention to the Sinclair QL computer by adding a QL section. Tim Swenson, Mark Wahl, Norm Lehfeldt, Rex Lungren, Bill Miller, and I are the starting candidates. Many thanks to Tim for sending the first 5 articles and programs.

**MERRY CHRISTMAS !!**



# "An Electronic Spreadsheet: Function And Application"

PART II

In this section of the paper I would like to focus on the valuable aspect of an ESC as a "model" builder using worksheets and templates to define and create a wide variety of frameworks with which a user may rely on repeatedly to record and report data on more than one occasion in the same identical manner.

To help us understand exactly what a "model" is I have chosen a particular accounting model package (sold by my own company) that makes use of the entire ESC ZX-CALC. The model is actually a supplementary application of ZX-CALC that serves to construct a financial picture of a relatively small enterprise (such as a sole proprietorship) for the purpose of analyzing or forecasting its financial performance. The name of this accounting model is called R.F.R.G. -- which stands for Ready Financial Report Generator.

This model allows the generation of 10 different financial-status reports about a company's past business history on a 6-12 month basis.

What the content of this text is concerned with is a layman's explanation of what the terminology of the model means and what the model does. This will ease the process of summarizing and recording the essential numerical values next to each subcategory of each of the ten categories comprising this accounting model package. In turn, you can use the program to perform your calculations in order to fill in the necessary blanks.

After the model has been entered into RAM then you fill in the appropriate blanks next to each template (i.e., Set1, Page-1). Each subsequent worksheet is Page-2 of the current Set with the next worksheet being Page-1 of the next higher-numbered Set then Page-2 of this Set . . ., and so on.

Within worksheets 1, 2, 3, and 4 we have the total picture that would generate a complete "cash flow" statement. This statement essentially reports the amount of money available, invested, how it was invested, and how much of it is left either in your pockets or left in a bank account. In worksheet 1 we have 2 subcategories under cash flow, which are "cash" and "cash receipts." Cash is the actual amount of capital you initially decided to invest in your business. Interest is the revenue earned on cash invested in some kind of demand deposit: checking, savings, and certificate-of-deposit

EDITOR'S NOTE: Mr. Rodriguez will be giving this lecture at the 1988 Florida Spring TIMEX/sinclair Fest. This is a two part series article featuring an electronic spreadsheet for the TIMEX/sinclair line of computers.

accounts. "Cash Beginning" is the sum of both cash and interest. That is, it is the money used to run a company's total operations. Cash receipts are monies loaned, owed to and paid into a company by creditors, clients, or stockholders of the company, respectively. Cash receipts are monies that when they are available to and are used by the company they normally are applied toward some purchase or amortization of some debt that the company incurred due to its regular operations. In worksheet 2 we list the "operating expenses" of a company. Here we list the overall administrative and selling expenditures of a company, including the interest service charge a company must pay if it borrowed money at a specified rate of interest. (Remember, during the preparation of your financial reports you must set a definite, limited period of time during which these figures are compiled and recorded, therein). In worksheet 3 you report the depreciation of all fixed assets preferably using the straight-line method. With this method take the cost of a given product-good, subtract its residual value (e.g., about 35% of original cost) and devide by the number of life-years you believe the given product will last. In worksheet 4 you report total capital appropriations in order to obtain the sum of a company's financial burden. You then subtract cash-beginning from total disbursements to obtain "cash ending," which is the money a company has on hand, usually in the bank or are funds that it must borrow to meet current expenses.

In worksheet 5 we have two reports. One is an "income statement". This report lists total sales and cost-of-goods-sold and subtracts them both to obtain gross profit and then subtracts gross profit from operating expenses to obtain total net income for a specified period of time. Next is the most essential report of them all which is a "balance statement" that reports a company's total assets compared to its total liabilities and stockholder's equity. By following each individual sub-category listed therein and referring to each preceding worksheet you will be able to record the proper figures needed to obtain a balance of assets-to-liabilities/equity. Worksheet 6 is simply the continuation and final segment of the "balance statement" report.

Worksheet 7 is a display of various important financial ratios that serve as a quick guide to making current decisions and investment forecasts about a

company's operations. In case you are unfamiliar with some of the terms used in this worksheet this is what they mean: (a full explanation of all labels used within the accounting model are in an Appendix enclosed with the package), Crt Rto, = current ratio; it is obtained by dividing current assets/current liabilities, Quk Rto. = quick ratio; it is obtained by dividing current equity/current liabilities. However, both ratios must be stated in relation to the number 1 (i.e. if current assets are $90,000.00 and current liabilities are $35,000.00 then the current ratio should be displayed as 2.57:1). Equity is defined to mean the total capital stock plus the retained earnings of a company within a specified period of time.

Worksheet 8 displays a "capital statement" which is the total capital assets of a firm less any cash withdrawals that may occur within a specific time period during which the balance statement was prepared.

Both worksheet 9 and 10 comprise a "working capital statement". This report serves to demonstrate whether or not administrative expenses are covered by the monies obtained through the sole income earnings of the company without relying on its net equity. In this statement, though it does not appear therein you may also report (under "working capital provided") the monies obtained through the sale of a company's fixed assets as well as any deferred income tax taxes and withholdings of employee's salaries and wages and the sale of capital stock in the company. Since this accounting model is designed mainly for a sole proprietorship like my company is, I felt that it was not necessary to include these subcategories within this final statement. If necessary, however, any user may expand worksheets 9 and 10 to include these other 4 sub-categories if they indeed do apply.

AFR SOFTWARE

ALBERT F. RODRIGUEZ
PROPRIETOR

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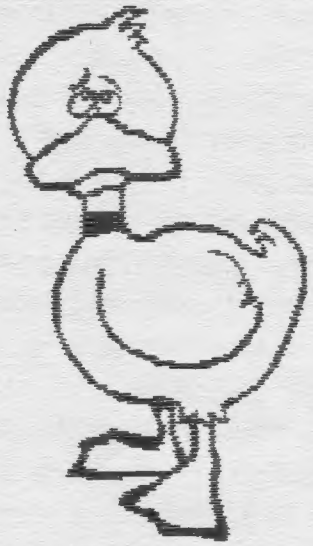

HOW DO
YOU GET
DOWN FROM
AN ELEPHANT ?

YOU DON'T -- YOU GET
DOWN FROM A DUCK !!

From the Nov/Dec 1987 Rantop N/L of Greater Cleveland.

# T5/1000 VERIFY

by DAVID NOWOTNIK

With only 8K of ROM in the T5/1000 it's little wonder that it hasn't a verify command. This little program will take care of that omission.

This routine is based on the LOAD routine in ROM. The change is when a byte is read off the tape. Instead of putting the byte into the approprite place in RAM, it is compared with the current byte at that address. If their is not a match, then the routine exits with an error message (R/0).

If all bytes match and the verification was successful, with no mis-match, than the 0/0 message will be returned at the end of the routine.

First enter this machine code loading routing, with 135 spaces or characters in the REM statment.

```
  10 REM .....(135 SPACES).....
  20 LET X=16514
  30 INPUT A$
  40 IF A$="S" THEN STOP
  50 LET J=16*(CODE A$-28)+CODE
A$(2)-28
  60 IF PEEK X=27 THEN POKE X,J
  70 LET X=X+1
  80 GO TO 30
```

Next RUN the program and enter these HEX digits.

```
CD 23 0F 37 11 00 00 CB 12 CB
0A CD 10 7C 18 FB 0E 01 06 00
3E 7F DB FE D3 FF 1F 30 49 17
17 38 28 10 F1 F1 BA D2 7A 7C
62 6B CD 10 7C CB 7A 79 20 03
BE 20 D6 23 17 30 F1 FD 34 15
21 09 40 50 CD 10 7C 00 CD 6C
7C 18 F6 D5 1E 94 06 1A 1D DB
FE 17 CB 7B 7B 38 F5 10 F5 D1
20 04 FE 56 30 B2 3F CB 11 30
AD C9 7A A7 28 BB CF 0C EB 21
7C 40 37 ED 52 30 06 1A B9 28
02 CF 1A 13 2A 14 40 37 ED 52
EB D0
```

Now the routine is in the long REM statment, and you can delete lines 20 through 80. DO NOT delete line 10. After these lines are deleted, add the next lines, 20 through 70. Then SAVE this before you go further, it is your VERIFY program.

```
20 LET X=16514
30 FOR I=31744 TO 31878
40 POKE I,PEEK X
50 LET X=X+1
60 NEXT I
70 NEW
```

To use the VERIFY routine, it must be loaded into your T5/1000, above RAM-TOP, before any other program. First lower RAM-TOP with these three direct commands....

```
POKE 16388,123 -- ENTER
POKE 16389,255 -- ENTER
NEW -- ENTER
```

Now you may LOAD and RUN your VERIFY routine.

You now can type in your BASIC program. When you are ready to SAVE it, just SAVE it to tape as you would normally SAVE it. To VARIFY, rewind the tape to the start of the program, and type in, in direct commanded.

```
RAND USR 31744
```

And press play on your recorder and ENTER on your computer

If you saved the program with variables, then CLEARed them before verifying, or changed the variables in any way then you may get a verify error (R/0). Otherwise, if all is well, you'll get an 0/0 message to tell you that your program has been VERIFIED.

From the Sept. 1987 Plotter N/L of Clackamas County, Oregon.

# A QUICKY

DICK WAGNER

Are you tempted to use UNLESS as a conditional? It would be nice and you can get the same result as:
XXX IF NOT (condition) THEN (statement) like this:

```
10 LET C$="Y" UNLESS INKEY $="N"
```

so use this replacement form:

```
10 IF NOT (INKEY $="N") THEN LET
C$="Y"
```

How about the modifier UNTIL? Sinclair BASIC doesn't support UNTIL as in:

```
10 LET Z=Z-21 UNTIL Y(=52
```

try:

```
10 LET Z=Z-21
20 IF NOT (Y(=52) THEN GOTO 10
```

871204.0900; 8986 BYTES; SK87A29A; (S)incLin(K);
Filename: SK87C03A; Contains: SK8712; (140 Lines);

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871204.0900; SK8712(B)eginning; (S)incLin(K) 8712:

FOR: GUTS/SV (Group Using Timex Sinclair of Silicon Valley);
BY: Bill Miller, 408 253-3175, Information Co-ordinator;
Topics:
1. New GUTS/SV:
1.1 Meeting Time & Place;
1.2 BBS;
1.3 Public Domain or 'ShareWare' Programs in Software Library;
1.4 Workshop Meetings;
1.5 Subscription rates;
2. GUTS/SV news 8712;
3. SC8711, (S)LIX (C)ontact Index 8711;
4. SX8711, (S)LIX Newsletter E(X)change Index 8711;
5. SP8711, (S)LIX (P)rogress 8711;

* New GUTS/SV Meeting Time & Place!!!
Last Wednesday of the month.
'Star By The Sea' Catholic Church, 1385 Michigan Avenue (between Essex and Archer), Alviso. Take 237 to Taylor St. (First Street), North West on Taylor St. to Michigan, right on Michigan to the Church.
Thanks to Terry Greenlee for introducing us to the Church, and to Father Coleman for allowing us to meet there at no charge.
The Church needs some help building speaker cabinets. It would be a nice gesture if someone handy at woodworking could help out. If you can help, contact Terry at 408-251-6152.

** Upcoming Meetings:

*** Dec. 30, Wednesday, 7:00 P.M., 'Star By The Sea' Catholic Church, Alviso.
Theme: Timex Sinclair/Other Computer Interfacing
Featured: Mark Wahl, Terry Greenlee, Bob Orrfelt

*** Jan. 27, 1988, Wednesday, 7:00 P.M., 'Star By The Sea' Catholic Church, Alviso.
Theme: Hardware Projects: QL RGB Cable, TS2065 RGB Adapter, QL/TS2068 RGB Monitor Switch, QL Centronics Interface, QL 300 BAUD MODEM adapter, QL/Wafadrive Printer Switch, QL Buss Buffer/Extender/512K RAM.
Featured: Bob Orrfelt?, Mark Wahl?, Bill Miller?, Rex Lundgren?.

*** Feb. 24, 1988, Wednesday, 7:00 P.M., 'Star By The Sea' Catholic Church, Alviso.
Theme: QL Disk Systems.
Featured: Bob Kuster?, Tim Swenson?, Nora Lehfeldt?, Jack Dohany?.

** Every Saturday morning, 9:00 A.M.; The Timex Sinclair Special Interest Group of The Computer Workshop meets at: Stanford University, Jordan Hall (in the Quadrangle), Math building (Number 380) in room 380C (downstairs).
For topic, check the LogOn BBS in Sunnyvale at: 408 735-7390, 300/1200, 8, N, 1, 24HRS, 32 lines (no waiting!). The LogOn/SV BBS now has downloadable TS files in directory 50. TS SIG OP: Andy Hradesky. Look for a TS Message Base soon.
The LogOn BBS in San Mateo at: 415-571-6911, 300/1200, 8, N, 1, 24HRS, 6 lines, TS SIG OP: Pat Morrissey. also has downloadable TS files in directory 50 and a TS Message Base in Message Base #10.

* New GUTS/SV BBS- Since Andy's rabbit ate his computer, GUTS/SV's BBS is off the air!!

* New Software Exchange Programs in Software Library. We have a list (published in TIMELINEZ 8710/11). We are working on a list which will have: Filename, File Length, Description. We will mail you the programs if you will:
* Mail us the Media:

| | |
|---|---|
| ** Cassette | TS1000, TS2068 or Spectrum |
| ** A&J Wafer I | TS1000 or TS2068 |
| ** A&J Wafer II | TS2068 or WafaDrive |
| ** ZX Microdrive Cartridge | Spectrum or QL |

** Check with us about other Media, it may be possible we can get help from other club members;
* Send us a 'Copying Fee' for each program ordered to help pay for the costs of this service. $2 for each Cassette Program (They take a long time). $1 for each program on the other Media (They don't take so long). The Fee will be waived if you send us an exchange program. Sending us some sort of an exchange file will also help us to check that our drives are compatible with yours.
For the latest list of ShareWare Software or to place an order, contact: Address:

* GUTS/SV TS ShareWare Software Exchange;
Bill Miller; 408-253-3175;
GUTS/SV Software Exchange Chairman;
6675 Clifford Drive;
Cupertino; CA; 95014-4530; USA.

You may also download the best of the TS ShareWare library directly from the LogOn BBS's in Sunnyvale or San Mateo.

* New GUTS/SV Workshop meetings. GUTS/SV is starting a workshop meeting program on Wednesday nights when the regular meeting at 'Star by the Sea' Catholic Church in Alviso is not scheduled. These meetings will be held at members houses for people interested in special projects the member holding the meeting is working on. Check LogOn/SV BBS for the schedule. First meetings will be:
** Terry Greenlee ... TS Displays
** Carl Rink ..... A real TS Flight Simulator

* New newsletter subscription rates. $15 per year for everyone, to help pay for the new Software library projects which are now available to all subscribers.

* GUTS/SV news 8712:

** 871125 meeting at Alviso 'Star by the Sea' Catholic Church. Meeting Attendees: Mark & Natalie Wahl, Bill Miller, Don Moser, Andy & Stephanie Hradesky.
*** Mark Wahl & Bill Miller reported on GUTS/SV's participation in the 871122 Golden Gate Shows Computer Show and Sale at the Santa Clara Convention Center.
*** Andy Hradesky discussed reviving the Silicon Valley Timex Sinclair Computer Fest. There seem to be 5 possibilities:
1. Have Golden Gate Shows Sponsor the Fest.
2. Have Frank Davis Sponsor the Fest remotely from Indianapolis.
3. Have Andy Sponsor the Fest.
4. Have Terry Greenlee Sponsor the Fest.
5. Don't have a Fest.

The June 11 & 12 or 18 & 19, 1988 date still looks good.

** Thanks to renewing subscriber Cliff Jackson and new subscriber Marinus Heuseveldt.

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871203.1620; SK8712(E)nd;
871205:1741; 18586 BYTES; SC87B04A; (S)LIX; (C)ontact Index;
Filename: SC87B06A; Contains: SC8711 (293 lines);

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871205:1741; SC8711(B)eginning; SLIX Contacts 8711 (22):

* 871128/Letter from Golden Gate Shows, 415-388-8893. Tables available at 880109,10 Oakland Coliseum Show and Sale to sell USED hardware and software: Full table ...$50; Half table ...$30.

* 871124/Letter from Thomas R. Anderson, 2896 West 2960 South, West Valley, UT, 84119. Thomas found out about us from Time Designs Magazine. He is interested in what we may have to offer. He has a TS2068, FDD 3000 dual disk drive, TS2050 MODEM, and Silver-Reed Printer. He is interested in information about our group, also hardware and software that may improve his system. He is also interested in how to join our group and it's cost.
Thomas: The attached TIMELINEZ 8710/11 and SincLink 8711 should answer your questions. Thanks for your interest.

* 871125/Catalog, QL Connection, 408-248-8017, (200) items.

* 871124:0841/Visit from Rainier Anacker. Rainer donated to SLIX: TS1000, TS2040 Printer, TS1016 16K RAMpack, 6 rolls TS2040 paper, Cassette recorder, 3 cassettes which Rainier wrote or entered, 6 Blank cassettes, 12 books, 1 SYNC Magazine, 4 'Ramblings' newsletters. See SLIX records for complete list. Thanks Rainier!

* 871124:0833/Call from Rich Erhardt, 408-727-2712;
2200 Agnew Rd., Apt. #309, Santa Clara; CA; 95054.
Rich found out about us from Microtimes. He is interested in using his TS1000 for a radio system controller. Can anyone help?

* 871123/Call from Frank Davis, 317-473-8031, about the two column 'Spectral Writer' modifications by Mark Wahl from SincLink 8710. Line 3310 should be:
3310 LET S=VAL "32768": LET S2=VAL "S+((PEEK 55532)*64)"
Frank says the Indianapolis TS Fest had an attendance of about 1100 (for two days) and about 50 vendors (some User Groups who paid 25% of the regular rate) using about 100 tables (booths?).
Frank also says they average about one computer show every two weeks, about the same as here?

* 871123/Letter from Al Seaward, 108 Faciane Ln., Slidell, LA, 70460. Al says he wants to use a TS1000 as a machine language test bed for the Z80. He is looking for a little BASIC program that will let him enter, display and execute Hex Code directly. Can anyone help?

Al: I looked thru our TS1000 'Shareware' library and found a program called 'WINDOW'. I have attached a listing and a COPY of a couple of sample screens. The commands are:

G Prompts for HEX address and displays contents (in HEX) of that address.
K Increments HEX address one and displays contents in HEX.
J Decrements HEX address one and displays contents in HEX.
D Displays memory contents from 'WINDOW' address forward as TS1000 characters (or KEYWORDs).
Q Quit and return to BASIC.
P Displays memory contents from 'WINDOW' address forward as HEX address, HEX contents and TS1000 character contents for 8 addresses.
C Displayed 'THE CALL SET BC=0000' when I tried it. Since I am not a machine language programer, I hope you can figure it out.
O Prompts for HEX number to change 'WINDOW' address memory contents.

We also have several books in our library that have 5-10 line 'HEX loader' programs and 118 line 'BASIC MONItor' and 154 line 'HELPA' (HE)x (E)ditor, (L)oader and (P)artial (A)ssembler programs. These books can be checked out by mail by TIMELINEZ/SincLink subscribers for a Deposit (refundable on return of the book) equal to the price of the book, plus shipping, plus $2 handling fee to help pay for the costs of the service. We hope to have an index to the library soon in TIMELINEZ or SincLink.

I have also enclosed a LISTing and HEX listing of 'MCLOAD', a Machine Code Loader program (in Machine Code) donated to us at the 840325 'West Coast Computer Faire' by James Ruetenik, 2372 Westcliffe Ln., Walnut Creek, CA, 94596, 415-933-7530.

James' instructions are:

RAND USER 32000 (Gets you to the loader)
Prompts:
H Enter 2 HEX digits for high page.
L Enter 2 HEX digits for low page.
To move reverse video cursor:
T Left
Y Down
U Up
I Right
Commands:
X HEX/Decimal Conversion
Q Quit HEX/Decimal Conversion
P Page thru memory
R Return to BASIC
Shift J Jumps to and runs Machine Code.

I tried all these, and they all seem to work except I don't see how to get the 'L' prompt.

These programs are available to SincLink subscribers on cassette (or A&J Microdrive) for $3 + $1 for cassette or $2 + $4 for A&J Wafer. Hope this helps.

* 871122/GUTS/SV Booth at the Golden Gate Computer Show and Sale at the Santa Clara Convention Center. Thanks to Golden Gate Shows for providing this booth free of charge and to Judy and Terry Greenlee, Mark Wahl, Bill Miller, Don Moser, and Carl Rink for manning it. The show was well attended and Judy (who is a 'Registration Specialist' for the convention center) provided table decorations of plants, candy bowls (with candy!), and table covering. Terry provided his ZXBC, TS1000, TS1500, TS2068 and monochrome monitor + lots of software for the display. Mark Wahl brought his development ZX Spectrum and Wafadrive. Bill Miller brought the 'Bay Area Timex/ Sinclair Users Group' sign, Danco 'Rainbow' (for attaching the Wafadrive to the TS2068), RGB/Composite Monitor, and QL. We ran the 'DLAN User group' demo and the 'Timex Watch' demo on the TS2068, and the 'QL' demo on the QL.

Seven people signed our 'TS Sign Up Sheet' (in exchange for a TIMELINEZ 8709):

* Norm Nurisso, 475- 8th Avenue, Menlo Park, CA, 94025.
* Steven Sidman, 372 Richlee Dr., Campbell, CA, 95008.
* Evan Watts, San Jose.
* Nick Korens, 2628 Belmont Cyn. Rd., Belmont, CA, 94002. Nick is a former member of PUG and he has quite a bit of TS1000 equipment FOR SALE.
* Len Witbeck, 382 Granite Creek, Santa Cruz, CA, 95065.
* V.K. Bailey, PO Box 248, Pleasanton, CA, 94566. He has a TS1000.
* Ken Wong, 822 Sunnypark Ct., Campbell, CA, 95008. Ken has a TS2068 which needs repair. He would also like some kind of mass storage for his TS2068 (other than cassette). We suggested: LarKen, AERCO, Logic Sales (Wafadrive) and A&J, all from SincLink 8711.
* Doug Barnes, 22091 Young Ave., Castro Valley, CA, 94546, 415-582-2160. Doug operates the 'Lily Pad' BBS at 415-581-9452. He reports he has about 40 computers including a QL, Spectrum Clone and Exidy Sorcerer.

Several operators of other booths had items of interest to TS Users:

* Cecil E. Bruce, 415-783-9768, TS1000 Software Cassettes ...$1.
* Barry D. Gysbers, 415-383-1234, TS books.
* Doug Hendricks, 408-972-8923, Mitsubishi 4853'U' 5.25 720K Drive ...$60. We bought one of these and it seems to work fine with the 'Cumana' Disk interface on the QL.
* Andy Hsu, 408-973-8582, Easy Data 1200 ext ...$75, Mitsubishi 3.5 720K ...$90.
* Ron Ciambrone, 916-334-2501, Swivel monitor holder with individually switched 5 outlet power strip ...$19.95.

* 871119/Call from Bob Montgomery, 408-866-7158. Bob found out about us from the San Jose Mercury News. He has the 'Timex Sinclair Technical Literary Series FOR SALE. This includes: TS1500, 12 books, 4 program cassettes, and molded case. $200 or best offer.

* 871117:1211/Call from Ed Pravenec, -, 9930 Kleppel, Tomball, TX, 77375. (Near Houston).

Ed says he got a TS1000 with 16K RAMpack and 'Mixed Game Bag', 'Supermath', and 'Inventory Control' program cassettes as a promotion. He can't get the 'K' cursor with or without the 16K RAMpack attached. He does seem to get a picture (that is, a clear screen, not just noise). We told him to enter some lines such as:

10 PRINT (ENTER)
20 PRINT (ENTER)
30 PRINT (ENTER)

to see if the cursor is off the screen and will scroll onto the screen. Does anyone else have some suggestions?

Ed: We couldn't find a record of a TS user group in Houston, but maybe the Dallas/ Fort Worth groups (listed in the attached TIMELINEZ 8709/ SincLink 8711) can help.

* 871116/Catalog Sheet from A+ Computer Response, 603-847-3373. User Group pricing effective 871115: Sinclair QL System:

Under 25 ...$99/Ea.
25 and up ...$90/Ea.
50 and up ...$80/Ea.
100 and up ...$70/Ea.

* 871116/Letter from Marinus Heuseveldt, Lantana, FL, 33462. Marinus found out about us from Sincus News. He addresses his letter to Rita Carr and reports his daughter's name is Rita. He says he has a TS1000, TS2068 and QL; all systems with disk, full size printer and other goodies. His latest project is adding Hi-Res to his TS1000 using Fred Nachbaur's SCRAM board.

Marinus: Thanks for your interest in TIMELINEZ/SincLink. I am returning your $10 check. As you can see from the attached TIMELINEZ 8709/SincLink 8711, our subscription rate is now $15 to help support the software exchange. That is not the real problem. Send what you can afford. The problem is that you made the check out to 'TIMELINEZ (Rita Carr)'. We realize that is what Sincus News said, but both of those accounts have been closed for about a year. Please make the check payable to 'SincLink'.

Thanks again for your support of TS computers!

* 871114/TCW_UG_TS_SIG meeting at Stanford.
** Truett Smith- COMDEX report.
** Carl Linden- Chat.
** Fred Waters (TCW_UG Secretary):
*** ESFOA History
*** TCW_UG Future
*** TCW_UG Needs a new secretary for 1988. Duties:
**** Gets Speaker
**** Puts message about Speaker's subject on BBS.
**** Brings Materials:
***** Projector
***** Free Magazines
**** Reports on meeting proceedings on BBS?

* 871111/Visit by Ludwig Hintze, 415-967-0916, to pick up his TS2050 MODEM repaired by Rex Lundgren.

Ludwig reports his employer is selling surplus Apple II+'s to employees for $100, so he has his TS2068, TS2050, TS2020, AERCO printer interface and misc. software (including 'Tech-Draw') FOR SALE ...$100.

* 871110/Catalogs (10) from Quantum Computing, 201-328-8846. 48 pages. QL Hardware and Software.

* 871107/TCW_UG_TS_SIG (The Computer Workshop User Group Timex Sinclair Special Interest Group) meeting at Stanford.

The presentation was by Philip Frieden on 'Microcode'. Philip showed that just as there is an approximate 10:1 increase in instructions from a high level language like BASIC to 'machine code', there is also a 10:1 increase in instructions from 'machine code' to 'microcode'. Understanding the principles of microcode should enable us to write faster machine code programs.

Philip also commented on 'Super Optimizer', an approximately 300 line long 68000 Assembly program which finds the shortest and fastest 68000 program to implement a given algorithm.

* 871107.0715/Call from Don Malham about Wafer II source and Wafadrive programs; Logic Sales Ltd; Don Malham; 01-882-4942; Director; 19 The Broadway, The Bourne, Southgate; London; N14 6PH; UNITED KINGDOM.
Don: It was good to talk to you on the telephone. I will send this information to A&J Microdrive, maybe they can help you obtain Wafer II's.
We are working on a list of software for use on the Wafadrive. We have programs (mostly in BASIC) which work, but they are still under developement and lack documentation. Do you have any of the Wafadrive programs which were available thru Rotronics? Perhaps we could arrange some sort of an exchange.

* 871106.1031/Call from Barry Kenmore. Barry found out about us from Computer Shopper. He is looking for information on products for his nephew's TS1000. Address: Barry Kenmore; -; 50 Paladino Avenue; New York; NY; 10035.
Barry: The attached SincLink 8710 lists some sources of TS products and TS information. Hope this helps.

* 871105/Catalog from WMJ Data Systems, 516-543-5252.
(38) TS1000 items; (56) TS2068 items.

* 871104/Letter from Alan Cunningham, 415-237-5386, FOR SALE: ZX-81 with: 16K Memory Module, Memotech Keyboard with user added space bar, Plug-in 'Memotext' word processor with instruction manual, TS2040 printer with three rolls of paper, Sinclair user's manual, 'ZX81 BASIC programming', 'The Timex Personal Computer Made Simple', 'Mastering your Timex-Sinclair 1000 P.C.', 'The Art of Computer Programming', TS1000 Software Cassettes: 'Flight Simulator', 'The Budgeter', 'Power Pack'. Total Package ...$100 or best offer.

* 871104/Library 8705/6 return and 8707/8/9 checkout by John Ezike, 415-843-5507.

* 871103/Letter from Peter Herzog dated 871026, postmarked 871028; P H K, Handels-GmbH; Peter Herzog; 0 86 54-65 700; President; Muncher StraBe 69; D-8228; -; Freilassing; GERMANY.
Peter found out about our User Group from the August issue of Computer Shopper. He handles software for the German market and is interested in detailed information to establish what we deal with and if it is of worth to his program.
Peter: Thanks for contacting us. That is the reason we list ourselves in Computer Shopper (and other magazines). The attached SincLink 8711 should answer your questions. Do you handle Sinclair Software? Perhaps we could exchange software lists and eventually software?

---

871106.1315; SC8711(E)nd;
871203:1513; 21142 BYTES; SX87B02A; (S)LIX; e(X)change;
FILENAME: SX87B10A;
Contains: SX8711,10-,09-,07- (330 Lines);

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871203:1513; SX8711(B)eginning;
SLIX Newsletter eXchange 8711 (9):

* ANSI Date Code/Record Type, Record Description; Organization; Name; Telecommunications Information; Position; Address; City; State; Zip Code; Country; Contents:
** Items in contents; Address: Name; ACD-TEL-NUMB; Address; City; State; Zip Code.
** ...; (Record End).

* 871116/Newsletter Exchange, ZX-Appeal 8710/11 (24 pages); Vancouver Sinclair Users Group; Rod Humphreys; 604-438-7740 (Ken Abramson- President); Treasurer & Editor; 2006 Highview Place; Port Moody; B.C.; V3H 1N5; CANADA; Contents:
Page:
Rod is looking for a TS1000 Memotech CPI Parallel Printer Interface to purchase to replace his while he trys to repair it. Can anyone help?
1. Sinclair 'Black Watch' ad.
2. Northwest TS Mini-Fair report. 150+ attendance.
3. TS2068, TS2040 printer, 2 cartridges, 3 tapes ...$130, from: Brooklyn Closeout Corp., 167 Clymer St., Brooklyn, NY, 11211. Price includes shipping.
4. 870911 & 871009 Meeting minutes.
5. TS1000 program listing '1K ZX81 FROGGER' by G. Wilson.
6. Dan Elliott 'TS Repairs ...$15' letter, 314-739-1712.
7. 'Integrated Services Digital Network' report by Harvey Taylor.
10. Convert your TS1016 RAMpack to an 8K Non-Volatile RAM by V. Lee.
11. QL 'Q LINK' XMODEM communications program review by Tim Stoddard.
12. Q LINK ad from Meta Media Productions.
TS2040 Printer friction feed problem fix by Ken Abramson.
13. Article on Sir Clive by Paul Koring from the London Globe and Mail.
14. BBS Listings (125).
16. PC8300 technical review (continued) by Fred Machbaur.
19. 'TS1000 Saving Memory' article.
21. TS2068 'Tape Labels' program by James G. DuPuy.
22. Sunstate TS Winterfest '88 (880304-6) Update by M.L. Johnson, 249 N. Harden Ave., Orange City, FL, 32763.
23. 'SAVAGE' floating Point Benchmark compares TS1000 to CPM 2.2, MS-DOS and CRAY X-MP/24. by Mel Richardson from SINC-LINK 8707/8 from BYTE 8511?
TS2068 'Pie Chart' program from 'The Plotter' 8710.

871116/Newsletter eXchange, CATS NL 8711 (12 pages); Capital Area Timex Sinclair Users Group; Tom Bent; 301-730-7187; President; P.O. Box 467; Fairfax Station; VA; 22039; USA; REMarks: Contact person: Vernon Smith, 703-978-1835, Editor; Contents:
Page:
1. Tom Bent reports: 3.5 Drives ...$95.
3. Letter from Joan Kealy. Joan is looking for another Timex Portugal Disc System as a backup.
4. 'QL on the QT' by Vernon Smith. 'Future of the QL'.
5. 'Why Sinclair' by George Rey.
6. 'Buffering the QL Monitor' by Mark Fisher.
7. 'Printing with the Star SG10 on the QL'
8. '3D Wire Frame Graphics' by Tim Swenson from TIMELINE2 8709.
9. 'Are Floppies a Dying Breed' by Wendy Goldman Rohn from Infosystems 8707.
'Program Writing from the Top Down' from Data Expansion 8709.
10. 'A Reset Switch for ZX81 and TS2068 Computers' from DTSA UG NL 8709.
11. 'TS2068 Power Supply, Make it Cooler and Quieter' by J.M. Dowell from ZX-Appeal 8706 from SUM 8601.

* 871114/Newsletter eXchange, SMUG BYTES 8711 (8 pages); Sinclair Milwaukee Users Group; Bill Heberlein; ACD-527-2191?; Editor; 5052 N. 91st Street; Milwaukee; WI; 53225; USA; Contents:
Page:
3. RMG ad. 87 NW TS Mini-Fair Video Tape ...$15.95, 503-655-7484.
4. 'AERCO Bank Switching'
6. SMUG Membership list (37).
7. TS2068 'Screen Builder' program.

* 871114/Newsletter Exchange, ATSU NL 87Late? (10 pages); Association of Timex Sinclair Users?; David P. Zimmerman; 614-253-7408; Editor; 650 Drexel; Columbus; OH; 43219; USA;
Page:
2. ATSU NL 8706? 'UGH, APRIL AGAIN' by Ray Thorton.
3. 'The Big Production, Part IV' by Ray Thorton.
5. 'The Magic of Graphics' by Mowgli Assor.
9. 'Using the AERCO FD-68 Disc System' by Mowgli Assor.

* 871112/Newsletter Exchange, Sincus News 8711/12 (12 pages); Sinclair Computer Users Society; Paul Hill; ACD-TEL-NUMB?; Secretary; 1229 Rhodes Road; Johnson City; NY; 13790; USA; Contents:
Page:
1. Happy 5th Birthday Sincus News!!
2. TS Newsletter listings (18).
4. Letters from:
Matthew Zenkar, QL 512k RAM ...$135, 716-663-2048.
Zbigniew Dziekonski.
6. Currys 'Sinclair Spectrum 128+3' ad from The Daily Mirror 871004.
7. Wes Brzozowski's TS2068 ROM disassembly from 0F46 to 1373.
11. Grey & Clifford Ad.
12. TS dealer listing (15).

* 871112/Newsletter Exchange, SRCC TSUG NL 871108 (TS2040 Letter + 3 pages); South Bay Computer Club, Timex Sinclair User's Group; John Petersen; 213-545-9581, BBS 213-329-3922, 24hrs; -; 2316 Walnut Ave.; Manhattan Beach; CA; 90266; USA; Contents:
* TS2040 'Letter' containing 871031 meeting notes;
* West Los Angeles ZX Computer Group Meeting Notice;
* TS1000 Machine Code 'Block Move' demonstration with MEX loader listing from ZX Computing 8504/5.
* TS2068 Machine Code 'Block Move' demonstration with machine code loader using DATA statements from ZX Computing 8504/5.

* 871105/Newsletter Exchange, TS-2068 Update Letter 871028 (3) (3-5 Pages); TS-2068 Update; Bill Jones; 904-871-4513; Editor; 1317 Stratford Ave.; Panama City; 32404; USA; Contents:
Page:
1. Subscriptions ($12/yr) past the 100 mark and building.
2. 871001 'To: The Cottage Industries that Support the TS-2068'.
4. 'A Quarterly Magazine for the users'.
* Building Block Sections:
** Software and Hardware Articles and Reviews.
** Technical: Schematics, Data Sheets, Interfacing.
** The Catalog: Software and Hardware Availability.
** Electronics Data: Formulas, Symbols, Tables.
** Subscribers Free Ads: Swap, Sell, Wanted.

```
* 871104/Newsletter Exchange, LISTing 8710 (12 Pages);
  Long Island Sinclair Timex User Group;  Joe Newman;
  201-527-0535;  Editor;  P.O. Box 438;  Centerport;  NY;
  11721-0438;  USA.  Contents:
  Page:
   1. TS2068 'Entertainer' music program along with other public
      domain programs offered for Cassette tape + Return
      postage by:  Address:  Joe Newman;  -;
      325 West Jersey Street, #2D;  Elizabeth;  NJ;  07202.
      LIST October meeting attended by Mark Smith, designer of a
      68020 board for the QL.
   2. FUTURA QL Clone to be a plug in board for a PC Clone.
      QL 'Sound Experimenter' program listing.
   3. Frank Toensay (of Quantum Computing) article encouraging
      TS1000 & TS2068 owners to get a QL.
   5. From Cedric Bastiaans:  Complete address for the
      originators of BASICODE:

          HOBBYSCOOP
          P O BOX 1200
          1200 BE Hilversum
          The Netherlands

   6. TS2068 'PURGE' routine replaces 'CLEAR' by Bill Pedersen.
   8. TS2068 'The Entertainer' program listing by Jim Smith.
   9. TS1000 'Voltage Regulator, OP AMP driven' program listing
      by Bill Harmer.
* 871102/Newsletter Exchange, THE SINC TIMES 8710 (12 pages);
  North East Florida Timex Sinclair Users Group;  John Kuhn;
  -;  -;  1707 King St.;  Jacksonville;  FL;  32204;  USA.
  Contents:
  Page:
   3. CP/M Commands.
   4. Water flow in pipes program by Don Berry.
   7. SuperBasic and QDOS review by ?
  10. 'Sunstate TS Winterfest '88 Update' by M.L. Johnson.
      Date: March 4-6, 1988.
      Information:  Sunstate TS Winterfest '88;
      249 N. Harden Ave.;  Orange City;  FL;  32763.
      BBS at 904-775-0093, 300?, 8, 1, N.

-------------------------------------------------------------------
871204:0937;  1882 BYTES;  SP87B(3A;  (S)LIX;  (P)rogress;
Filename: SP87C05A;  Contains:  SP8711;  (29 lines);
-------------------------------------------------------------------
871204:0937;  SP8711(B)eginning;

First, let's review SLIX goals:

  * Store TS (Timex Sinclair Technology) information:
  ** In a standard format;
  ** On BBS's for access by all;
  ** On large Mass Storage Devices for large 'On Line' storage;
  ** In Large (R)andom (A)ccess (M)emory for fast searching;
  ** In 'Last In First Out' (LIFO) order for high probability of
     short searches;
  * Keep SLIX simple!;
  * Provide for Automatic, Regular, User Defineable downloading
    and uploading;
So, What is the progress?:

  * The Brier Technology (408-435-8463) 'embedded servo' 3.5 in,
    20 MegaByte, 777 Tracks Per Inch (TPI) Floppy Disk Drive
    looks interesting for the mass storage device. See
    'Electronics Products' 871115 page 20.

  The main problem we have run into is providing the RENUMBER,
   DELETE, FIND (and REPLACE?), SORT, and WRITE functions.

-------------------------------------------------------------------
871203:2022;  SP8711(E)nd;
```

```
  10 BORDER 4: PAPER 6: CLS : FO
R A=0 TO 12
  20 PRINT INK 1;"CHRISTMAS MUSI
C";TAB 17; INK 3;"CHRISTMAS MUSI
C": NEXT A
  30 PRINT AT 18,1; PAPER 5;"PRE
SS ""ENTER"" TO SELECT A SONG"
  40 PAUSE 0
  50 CLS : PRINT PAPER 5;"******
 TABLE OF CONTENTS *******": PRI
NT '''''''
  60 FOR I=1 TO 3: RESTORE I*200
+800: READ N$: PRINT I;TAB 4;N$:
 NEXT I
  70 PRINT PAPER 5;AT 20,0;"ENTE
R THE NUMBER OF THE COMPOSI-TION
 THAT YOU WANT TO PLAY      "
  80 INPUT N: CLS : LET Z$=""
  90 RESTORE N*200+800: READ N$,
T
 100 CLS : PRINT PAPER 5;"******
*** NOW PLAYING **********";AT 2
1,0;"********* NOW PLAYING *****
*****"
 110 PRINT AT 10,(31-LEN N$)/2;N
$
 120 PRINT PAPER 3; INK 7;AT 20,
0;"TO STOP, PRESS ""SHIFT"" + ""
BREAK"""
 130 READ F,V: ON ERR GO TO 170
 140 IF F<>99 THEN GO TO 160
 150 PAUSE T/V*60: GO TO 130
 160 BEEP T/V,F: GO TO 130
 170 ON ERR RESET : IF Z$="2" TH
EN RESTORE N*200+810: GO TO 130
 180 CLS : PAPER 7: PRINT AT 7,0
;"PRESS ""1"" TO PLAY AGAIN.
    "
 190 PRINT "PRESS ""2"" TO PLAY
CONTINUOUSLY. "
 200 PRINT ;"PRESS ""0"" TO PLAY
 ANOTHER SONG. "
 210 PAPER 6
 220 PAUSE 0: LET Z$=INKEY$: IF
Z$="1" OR Z$="2" THEN GO TO 90
 230 IF Z$="0" THEN GO TO 50
1000 DATA "SILENT NIGHT",1.8
1010 DATA 7,8/3,9,8,7,4,4,4/3,7,
8/3,9,8,7,4,4,4/3,14,2,14,4,11,4
/3,12,2,12,4,7,4/3,9,2,9,4,12,8/
3,11,8,9,4,7,8/3
1020 DATA 9,8,7,4,4,4/3,9,2,9,4,
12,8/3,11,8,9,4,7,8/3,9,8,7,4,4,
4/3,14,2,14,4,17,4,14,4,11,4,12,
4/3,16,1,12,4
1030 DATA 7,4,4,4,7,4,5,4,2,4,0,
1
1200 DATA "JINGLE BELLS",.8
1210 DATA 13,4,13,4,13,4,99,4,13
,4,13,4,13,4,99,4,13,4,16,4,9,4,
11,4,13,4/3,99,4,14,4,14,4,14,4,
14,4,14,4,13,4
1220 DATA 13,4,99,4,13,4,11,4,11
,4,13,4,11,4,99,4,16,4,99,4,13,4
,13,4,13,4,99,4,13,4,13,4,13,4,9
9,4,13,4,16,4
1230 DATA 9,4,11,4,13,4/3,99,4,1
4,4,14,4,14,4,14,4,14,4,13,4,13,
4,99,4,16,4,16,4,14,4,11,4,9,4,9
9,4,21,4,99,4
1400 DATA "JOY TO THE WORLD",2.5
1410 DATA 24,4,23,5.33,21,16,19,
2.67,17,8,16,4,14,4,12,8/3,19,8,
21,2.67,21,8,23,2.67,23,8,24,2,9
9,16,24,8,24,8,23,8,21,8,19,8,19
,5.33
1420 DATA 17,16,16,8,24,8,24,8,2
3,8,21,8,19,8,19,5.33,17,16,16,8
,16,8,16,8,16,8,16,8,16,16,17,16
,19,16/5,99,16,17,16,16,16,14,8
1430 DATA 14,8,14,8,14,16,16,16,
17,16/5,99,16,16,16,14,16,12,8,2
4,4,21,8,19,5.33,17,16,16,8,17,8
,16,4,14,4,12,2
```

OLDIES BUT GOODIES!
REMEMBER THESE THREE?

## TURTLE GRAPHICS
**by Timothy Swenson**

One of the most overlooked and unused capabilities of the QL is Turtle Graphics. Turtle Graphics is the basis of the language LOGO. Years ago LOGO was seen as the perfect language to start young children on. The heart of the language was the movement of a turtle cursor around the screen leaving a trail behind it. With simple loops one could get the turtle to draw a box or a five-point star.

Considering the past popularity of LOGO, I have yet to see any mention of Turtle Graphics on any QL related publication. It's as if QL users are too advanced to use such simple commands.

I personaly think that using the already present Turtle Graphic commands, a workable LOGO can be implimented on the QL. Procedures can be used to add keywords to the language. Remember procedures can be called at the immediate level by entering their name.

Not knowing LOGO it would be hard for me to try this implementation myself, although if someone is willing to lend me a book on LOGO I'll give it a try. I can still see using a LOGO type language to help children start programming.

Now it's time for me to get off of my soapbox and spend some time explaining Turtle Graphics.

Turtle Graphics, as it was originaly concieved, can be pictured as a little robot (turtle) running around on the floor with a pen attached to it. The turtle can move forward, turn, lift the pen, and drop the pen (write). Now consider the screen as the floor and a dot as the turtle.

The commands that get the turtle to do things are quite simpe: PENDOWN and PENUP enable and disable the drawing of lines. MOVE tells the turtle to move N units forward. TURN turns the turtle N degrees to the left. A negative N would turn it to the right. Both MOVE and TURN are relative. This means that they remeber the last place the turtle was and do the command from there.

TURNTO makes the turtle turn to a specific heading no matter what the last heading was. To move the turtle to a specific place use POINT. This sets the point and moves the turtle to that point. Turtle Graphics are based on the QL graphics system. Any graphic command affects the turtle. If you drew an ARC and then told the turtle to MOVE 5, the turtle would start at the end of the ARC.

This means that FILL may be used with turtle graphics. But be aware that the results may be a bit unexpected.

At the end of this article is a short program that demonstrates a use of Turtle Graphics. The program asks for a number of sides for a figure. The figure with 5 sides comes out to look like a 5-pointed star. All numbers entered must be odd. Give the program a try. Also try adding FILL statements and see what happens.

I hope I didn't bore anyone with my ramblings.

```
100 CLS
110 INPUT "How many sides?"!sides
120 LET angle = (360*(INT(sides/2
    )))/sides
130 CLS
140 POINT 10,50
150 PENDOWN
160 TURNTO 0
170 FOR x = 1 TO sides
180     MOVE 50
190     TURN -angle
200 NEXT x
210 BEEP 2000,10
220 PAUSE
230 GO TO 100
```

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## A GLOSSARY OF COMPUTER TERMS

DOUBLE DENSITY - Really DUMB!
ELECTRONIC MAIL - The only kind delivered in less than a week.
EXPANSION SLOTS - The extra holes in your belt.
FATAL BUG - To have a Volks-wagon drop on you.
FLOPPY DISK - Serious curvature of the spine.
HEAD CRASH - A collision with a Port-A-Potty.
HOLOGRAM - Greeting from an elderly woman.
INTERGRATED CIRCUIT- An electric bus with randomly seated black chips.
INTERPRETER - Someone you take with you to the computer so you can understand the salesman; usually a 12 yr. old.
KEY PAD - An apartment with a lock.
KEY WORD - "Your place or mine?"
MACHINE LANGUAGE - "Zoom, Putt-Putt, Chugga-chugga", etc.....
MEMORY - Where data is placed prior to loosing it.
MENU - An itemized list of ways to make a mistake on a computer.

**Support Your Local Timex/Sinclair Users Group!**

New information on the times and places where the EBZUG meetings will be held. Starting February thru July of 1988, 3rd Wednesday of the month at the WEST BERKELEY LIBRARY at 8-10pm. More info will be in the club calendar of the January issue.

The company QL Connection, not to be confused with the QL sections in TIMELINEZ, will approach a merger with American Micro Connection. This will take effect the first of the year.

**Don't miss a single issue of**

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**TIMELINEZ**

**Deadline for the next issue:**

SUNDAY, JANUARY 10, 1988

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